

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-019058**Date Inspected:** 04-Jan-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Yang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Segment**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. M. Manikandan was present during the time noted above for observations relative to the work being performed.

OBG # BAY 4

This QA Inspector witnessed the final bolt tension verification on the Traveler Rail of OBG. The torque wrench S/N was 1003153.The QA Inspector witnessed 10% of the bolts on a random basis and found the tensioning of the bolts appeared to be in general compliance with the contract specifications. The traveler rails and bolt size designations were as follows:

M16 X 75 – DHGM 160023 – 190 NM:

10TR1-014, 016 and 030

10TR3-026 and 036

11TR1-017

11TR2-017 and 018

11TR3-006

For additional information please reference the pictures below:

OBG # TRIAL ASSEMBLY YARD (12BE-12CE)

This QA Inspector along with QA Inspector Mr.Manjunath S Math performed dimensional joint survey inspection

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on the U-Rib to verify the offset using 1 Meter straight edge. The measurements were recorded on a separate sheet and forwarded to team leader for review and disposition. The segment and panel point designations were as follows:

Segment 12BE to Segment 12CE – PP 114.5 to PP 115

This QA Inspector randomly observed the following work in progress:

OBG # TRIAL ASSEMBLY YARD (12AE and 12BE)

The QA Inspector observed the welding operation per the SMAW process on weld joint no. 004 in the (4G) overhead position on bottom and side panel piece mark no. SEG3001A. The location was the complete joint penetration groove weld joining the bottom and side panel of segment 12AE at work point E4. The welder ID was 050289. The welding was performed against welding repair report B-WR19750. The ZPMC CWI was identified as Li Yang. The welding variables recorded by QC appeared to comply with the WPS-345-SMAW-4G (4F)-FCM-Repair-1.

The QA Inspector observed the welding operation per the SMAW process on weld joint no. 004 in the (4G) overhead position on bottom and side panel piece mark no. SEG3002A. The location was the complete joint penetration groove weld joining the bottom and side panel of segment 12BE at work point E4. The welder ID was 050289. The welding was performed against welding repair report B-WR19750. The ZPMC CWI was identified as Li Yang. The welding variables recorded by QC appeared to comply with the WPS-345-SMAW-4G (4F)-FCM-Repair-1.

OBG # TRIAL ASSEMBLY YARD (12BE)

The QA Inspector observed the welding operation per the FCAW process on weld joint no. 017 in the (2G) horizontal position on longitudinal shear plate and bottom panel piece mark no. SEG3002N. The location was the complete joint penetration groove weld joining the longitudinal shear plate with bottom panel of segment 12BE at work point E3. The welder ID was 047353. The welding was performed against welding repair report B-WR18924. The ZPMC CWI was identified as Li Yang. The welding variables recorded by QC appeared to comply with the WPS-345-FCAW-2G (2F)-ESAB-Repair.

OBG # TRIAL ASSEMBLY YARD (12AE)

The QA Inspector observed the welding operation per the SMAW process on weld joint no. 009 in the (4G) overhead position on longitudinal shear plate and deck panel piece mark no. DP3018-001. The location was the complete joint penetration groove weld joining the longitudinal shear plate with deck panel of segment 12AE at bikepath side. The welder ID was 044515. The welding was performed against welding repair report B-WR18923. The ZPMC CWI was identified as Li Yang. The welding variables recorded by QC appeared to comply with the WPS-345-SMAW-4G (4F)-FCM-Repair-1.

OBG # TRIAL ASSEMBLY YARD (12AW-12BW)

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The QA Inspector observed the welding operation per the SMAW process on weld joint no. 008 in the (3G) vertical position on side panel piece mark no. CA3012. The location was the complete joint penetration groove weld joining the side panel of segment 12AW and 12BW at work point W1 to W3. The welder ID was 040656. The welding was performed against welding repair report B-WR19713. The ZPMC CWI was identified as Li Yang. The welding variables recorded by QC appeared to comply with the WPS-345-SMAW-3G (3F)-FCM-Repair-1.



### Summary of Conversations:

No relevant conversations were reported on this date.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Manikandan,Murugan	Quality Assurance Inspector
<b>Reviewed By:</b>	Peterson,Art	QA Reviewer

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